Amendments to Claims:

Please amend the claims as follows. This listing of claims will replace all prior versions of the claims in the application.

1. (Currently Amended) A computer-readable medium comprising software for a video surveillance system, comprising code segments for operating the video surveillance system based on video primitives, wherein the code segments for operating the video surveillance system comprise:

code segments for identifying one or more user-defined event discriminators;

code segments for extracting video primitives from a video; and

code segments for extracting event occurrences from the extracted video primitives using at least one of the one or more user-defined event discriminators, wherein the code segments for extracting event occurrences are different from the code segments for extracting video primitives;

wherein each video primitive is an observable attribute of an object viewed in the video;

wherein the video primitives are at least one of the following: a size, a shape, a color, a texture, a velocity, a speed, an internal motion, a feature of a salient motion, or a feature of a scene change.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) A computer-readable medium as in claim 1, further comprising code segments for archiving the extracted video primitives.

5. (Previously Presented) A computer-readable medium as in claim 1, further comprising code segments for undertaking a response based on extracted event occurrences.

6. (Original) A computer-readable medium as in claim 5, wherein the response comprises initiating another sensor system.

7. (Original) A computer-readable medium as in claim 1, further comprising code segments for calibrating the video surveillance system.

8. (Original) A computer-readable medium as in claim 7, wherein the code segments for calibrating comprise code segments for self-calibrating the video surveillance system.

9. (Original) A computer-readable medium as in claim 8, wherein the code segments for self-calibrating comprise:

code segments for detecting as least one object in a source video; and

code segments for tracking the object.

10. (Original) A computer-readable medium as in claim 9, wherein the code segments for detecting at least one object comprise:

code segments for detecting at least one object via motion of the object; and

code segments for detecting at least one object via change in a background model.

11. (Original) A computer-readable medium as in claim 7, wherein the code segments for self-calibrating comprise:

code segments for identifying trackable areas; and

code segments for identifying typical sizes of typical objects.

12. (Original) A computer-readable medium as in claim 7, wherein the code segments for calibrating comprise:

code segments for manual calibration;

code segments for semi-automatic calibration; and

code segments for automatic calibration.

13. (Previously Presented) A computer-readable medium as in claim 1, further comprising code segments for tasking the video surveillance system with the user-defined event

discriminators.

14. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking comprise code segments for identifying at least one object.

15. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking comprise code segments for identifying at least one spatial area.

16. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking comprise code segments for identifying at least one temporal attribute.

17. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking identify at least one interaction.

18. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking identify at least one alarm.

19. (Original) A computer-readable medium as in claim 1, wherein the video primitives are from at least one of a video sensor and another sensor.

20. (Original) A computer-readable medium as in claim 1, wherein the video primitives are retrieved from an archive of video primitives.

21. (Original) A computer system comprising the computer-readable medium of claim 1.

22. (Previously Presented) A computer-readable medium comprising software for a video surveillance system, comprising:

code segments for identifying one or more user-defined event discriminators;

code segments for accessing archived video primitives from a video; and

code segments for extracting event occurrences from accessed archived video primitives

using at least one of the one or more user-defined event discriminators.

23. (Cancelled)

24. (Original) A computer-readable medium as in claim 22, further comprising code segments for undertaking a response based on extracted event occurrences.

25. (Currently Amended) A method comprising the step of operating a video surveillance system based on video primitives, wherein operating the video surveillance system comprises the steps of:

identifying one or more user-defined event discriminators;

extracting video primitives from a video; and

extracting event occurrences from the video primitives using at least one of the one or more user-defined event discriminators;

wherein each video primitive is an observable attribute of an object viewed in the video;

wherein the video primitives are at least one of the following: a size, a shape, a color, a texture, a velocity, a speed, an internal motion, a feature of a salient motion, or a feature of a scene change.

26. (Previously Presented) A method comprising the steps of:

identifying one or more user-defined event discriminators;

accessing archived video primitives extracted from a video; and

extracting event occurrences from accessed video primitives using at least one of the one or more user-defined event discriminators.

27. (Currently Amended) An apparatus for video surveillance, wherein the apparatus is adapted to perform video surveillance based on video primitives, wherein the apparatus is adapted to:

identify one or more user-defined event discriminators;

extract video primitives from a video; and

extract event occurrences from the video primitives using at least one of the one or more user-defined event discriminators;

wherein each video primitive is an observable attribute of an object viewed in the video;

wherein the video primitives are at least one of the following: a size, a shape, a color, a texture, a velocity, a speed, an internal motion, a feature of a salient motion, or a feature of a scene change.

28. (Previously Presented) The apparatus of claim 27, wherein the apparatus comprises application-specific hardware to emulate a computer and/or software.

29. (Previously Presented) A computer-readable medium as in claim 1, wherein event occurrences are extracted based on video primitives and non-video primitives.

30. (Previously Presented) A computer-readable medium as in claim 1, further comprising code segments for identifying the one or more user-defined event discriminators using a user interface.

31. (Previously Presented) A computer-readable medium as in claim 1, wherein at least one user-defined event discriminator defines an interaction between one or more video primitives, between one or more spatial areas of interest, and/or between one or more temporal areas of interest.

32. (Currently Amended) Application-specific hardware for performing video surveillance, the video surveillance comprising:

specifying one or more user-defined event discriminators for video surveillance;

extracting video primitives from a video; and

extracting event occurrences from the video primitives using at least one of the ~~based on~~ one or more user-defined event discriminators;

wherein each video primitive is an observable attribute of an object viewed in the video;

wherein the video primitives are at least one of the following: a size, a shape, a color, a

texture, a velocity, a speed, an internal motion, a feature of a salient motion, or a feature of a scene change.

33. (Previously Presented) Application-specific hardware as in claim 32, further comprising self-calibrating the application-specific hardware for performing video surveillance.

34. (Previously Presented) Application-specific hardware as in claim 32, wherein event occurrences are extracted based on video primitives and non-video primitives.

35. (Currently Amended) Application-specific hardware as in claim 32, wherein at least one user-defined event discriminator includes at least two of the following: an object, a spatial area, a temporal attribute, an interaction, [[and]] or an alarm.

36. (Previously Presented) Application-specific hardware as in claim 32, wherein at least one user-defined event discriminator defines an interaction between one or more video primitives, between one or more spatial areas of interest, and/or between one or more temporal areas of interest.

37. (New) A computer-readable medium as in claim 1, wherein the video primitives are at least two of the following: a size, a shape, a color, a texture, a position, a velocity, a speed, an internal motion, a feature of a salient motion, or a feature of a scene change.

38. (New) A computer-readable medium as in claim 1, wherein the video primitives are at least three of the following: a size, a shape, a color, a texture, a velocity, a speed, an internal motion, a feature of a salient motion, or a feature of a scene change.

39. (New) A computer-readable medium as in claim 1, wherein the video primitives are at least seven of the following: a classification, a size, a shape, a color, a texture, a position, a velocity, a speed, an internal motion, a motion, a salient motion, a feature of a salient motion, a scene change, a feature of a scene change, or a pre-defined model.

40. (New) A computer-readable medium comprising software for a video surveillance system, comprising code segments for operating the video surveillance system based on video primitives, wherein the code segments for operating the video surveillance system comprise:

code segments for identifying one or more user-defined event discriminators;

code segments for extracting video primitives from a video;

code segments for archiving the extracted video primitives; and

code segments for extracting event occurrences from the extracted video primitives using at least one of the one or more user-defined event discriminators.

41. (New) A computer-readable medium as in claim 40, further comprising:

code segments for identifying one or more additional user-defined event discriminators; and

code segments for extracting event occurrences from the archived video primitives using at least one of the one or more additional user-defined event discriminators.

42. (New) A computer-readable medium as in claim 40, wherein each video primitive is an observable attribute of an object viewed in the video and includes at least one of the following: a size; a shape; a color; a texture; a position; a velocity; a speed; an internal motion; a feature of a salient motion; or a feature of a scene change.

43. (New) A computer-readable medium comprising software for a video surveillance system, comprising code segments for operating the video surveillance system based on video primitives, wherein the code segments for operating the video surveillance system comprise:

code segments for extracting video primitives from a video; and

code segments for archiving the extracted video primitives.

44. (New) A computer-readable medium as in claim 43, wherein each video primitive is an observable attribute of an object viewed in the video and includes at least one of the following: a size; a shape; a color; a texture; a position; a velocity; a speed; an internal motion; a

feature of a salient motion; or a feature of a scene change.